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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,096	02/12/2002	Charles E. Taylor	SHPR-01028US4 SRM	9062
23910	7590	04/29/2004	EXAMINER	
FLIESLER MEYER, LLP FOUR EMBARCADERO CENTER SUITE 400 SAN FRANCISCO, CA 94111			MCDONALD, RODNEY GLENN	
			ART UNIT	PAPER NUMBER
			1753	

DATE MAILED: 04/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/074,096

Applicant(s)

TAYLOR ET AL.

Examiner

Rodney G. McDonald

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 52-83 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 52-83 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/02, 5/02, 2/03, 3/04,
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 52-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okress (U.S. Pat. 3,374,941) in view of Hak (U.S. Pat. 6,494,940) and Satyapal et al. (U.S. Pat. 6,149,717).

Okress teach an air conditioner device that destroys airborne bacteria, viruses and non-saturated odors by oxidation. (Column 1 lines 54-56) Fig. 1 shows the air-blower 10 including **a housing 12** having **an air inlet** and **an air outlet 16**. **Inlet 14 is covered by a louver 18** which is opaque to ultra-violet radiation. Similarly, ultra-violet radiation opaque **louver 20 covers outlet 16**. Accordingly, by virtue of the geometry of

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the louvers air can pass through the blower 10, but ultra-violet radiation cannot pass from within the housing 12. Within housing 12 is ***an ionizing means 20*** and an accelerating means 22. Ionizing means 20 includes ***a source of ultra-violet radiation 24*** operatively disposed with respect to ***a plurality of ionizing elements 26***.

Accelerating means 22 includes suitably biased ion collectors 28 which are shown as a plurality of parallel plates but could as well be a grid like structure. ***Source 24 emits ultra-violet rays having a wavelength of preferably 2000 A. (Angstroms) or longer.***

(Column 2 lines 39-54)

The differences between Okress and the present claims is that the vertical elongated geometry of the housing is not discussed (Satyapal et al. discussed below), the vertical geometry of the louvers is not discussed (Okress discussed below), the housing having an outlet panel with the louvers which is removable from the housing is not discussed (Hak discussed below), the housing having an inlet panel with the louvers which is removable is not discussed (Hak discussed below), walls arranged to prevent the user from viewing the UV lamp attached to the inlet or outlet removable panel is not discussed (Hak and Satyapal et al. discussed below), the shape of the walls for shielding the UV lamp is not discussed (Satyapal et al. discussed below), a safety mechanism for cutting off power to the lamp is not discussed (Hak discussed below) and the panel utilizing tabs to engage or disengage the lamp power as the safety mechanism is not discussed (Hak discussed below).

Satyapal et al. teach an electronic air cleaner (10) which includes a housing 20, a mechanical prefilter (30), an electrostatic precipitator cell (40) and at least one

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germicidal lamp (50). (See Abstract) The electrostatic precipitator cell 40 also includes a plurality of ionizer wires 46 disposed at spaced intervals. (Column 4 lines 30-32)

From Figures 1-8 the housing is vertically elongated. (Figures 1-8)

From Figures 1 and 5 of Okress the louvers could be horizontal or vertical depending on the orientation of the housing. (See Figures 1 and 5 of Okress)

Hak teach an air purifier that includes ***an inlet grill 39 detachable from the air purifier and an outlet grill detachable from the air purifier.*** (Column 5 lines 28-43; Column 7 lines 46-56) ***When the outlet grille is removed access is provided to the germicidal lamp for removal or installation.*** (See Fig. 8) A louver assembly 118 is supported below the frame 108 which supports the outlet grille 106. ***The louver assembly 118 is substantially light impermeable in that it substantially prevents passage of potentially harmful UV light supplied from the lamp 88 through the air outlet 37.*** (Column 7 lines 57-63) ***Satyapal et al. further suggest utilizing reflectors 80 at the inlet for reflecting UV light back into the chamber and preventing UV light from leaving the chamber. The reflectors can be of different geometries.*** (Fig. 4; Column 7 lines 49-61) ***Presumably Satyapal et al.'s reflectors could be applied to the inlet grille like applying the reflector (i.e. shield) to the outlet grill as suggested by Hak above.***

Satyapal teach that that ***the reflectors*** around the UV lamps may comprise elongated rectangular flat plates or ***may comprise elongated rectangular arcuate plates, such as for example plates having a parabolic, cylindrical or other curved contour.*** (Column 6 lines 24-27)

Hak teach further that a safety feature to be incorporated in an air purifier includes inlet and outlet safety switches which utilizes tabs to interrupt upon removal of the inlet or outlet grilles the power to the ultraviolet lamp to prevent exposure to ultraviolet light. (Column 10 lines 24-54)

The motivation for selecting a particular geometry of the chamber is that it allows for effective air cleaning. (Column 2 lines 5-7)

The motivation for having removable inlet and outlets is that it allows for easy replacement of UV lamps. (Column 3 lines 41-43)

The motivation for having walls arranged with the inlet and outlet to prevent viewing of the UV light is that it prevents exposure to harmful ultraviolet light. (Column 3 lines 55-58)

The motivation for utilizing a particular shape to the walls is that it allows for reflection of the UV light. (Column 6 lines 24-31)

The motivation for providing a safety mechanism is that it allows for preventing inadvertent exposure to ultraviolet light. (Column 3 lines 59-63)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Okress by selecting a particular geometry of the housing and louvers, by providing a removable inlet and/or outlet, by providing a wall of particular geometry attached to the removable inlet and/or outlet and to have provided safety means as taught by Satyapal et al. and Hak because it allows for effective air cleaning by reflecting UV light, preventing exposure to harmful UV light and allows for easy replacement of UV lamps.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney G. McDonald whose telephone number is 571-272-1340. The examiner can normally be reached on M- Th with Every other Friday off..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Rodney G. McDonald
Primary Examiner
Art Unit 1753

RM
April 28, 2004